

Energy Efficiency Programs: Are We Ready to Measure Success?



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Traditional EM&V



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- Program feedback
- Portfolio decision
 - Should we fund this EE program?
 - Should we fund EE programs?
- Cost-recovery and prudence review
- Planning
- Modest funding

Raising the bar



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- More money = more visibility
 - Stimulus, PBF, DSM
- Performance-based compensation
 - CA DSM, S.A.W., energy saving credits (“white tags”)
- Performance-based regulation
 - Carbon offsets, EERS, EU Directive
- Performance-based funding
 - Cap and trade allowance distribution

Nothing's perfect



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- There *will* be errors
- Precision is desirable
- Bias is insidious
- “Good EM&V” is the best we can do
 - Unpredictable direction of bias
 - As fully informed as we can afford

Uncertainty Abounds!



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Source: Cambridge Energy Research Associates.

Source: Cambridge Energy Research Associates via Craig Severance, Business Risks and Costs of New Nuclear Power, January 2009.

Credibility is paramount



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- EE EM&V ultimately political
 - Many judgment calls required
 - Politics will occur
- Credibility comes from process
 - Symmetrical interests, knowledge & power
 - Checks and balances
 - “Supreme” court (authority and legitimacy)

“Additionality”



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From the Literature

Financial (investment)

Policy/regulatory/legal

Common practice

Performance benchmark

Market barriers

Technology

Timing

Project in, project out

Street Talk

Bureaucratic – Hassle factor

Utopian – Why penalize good people

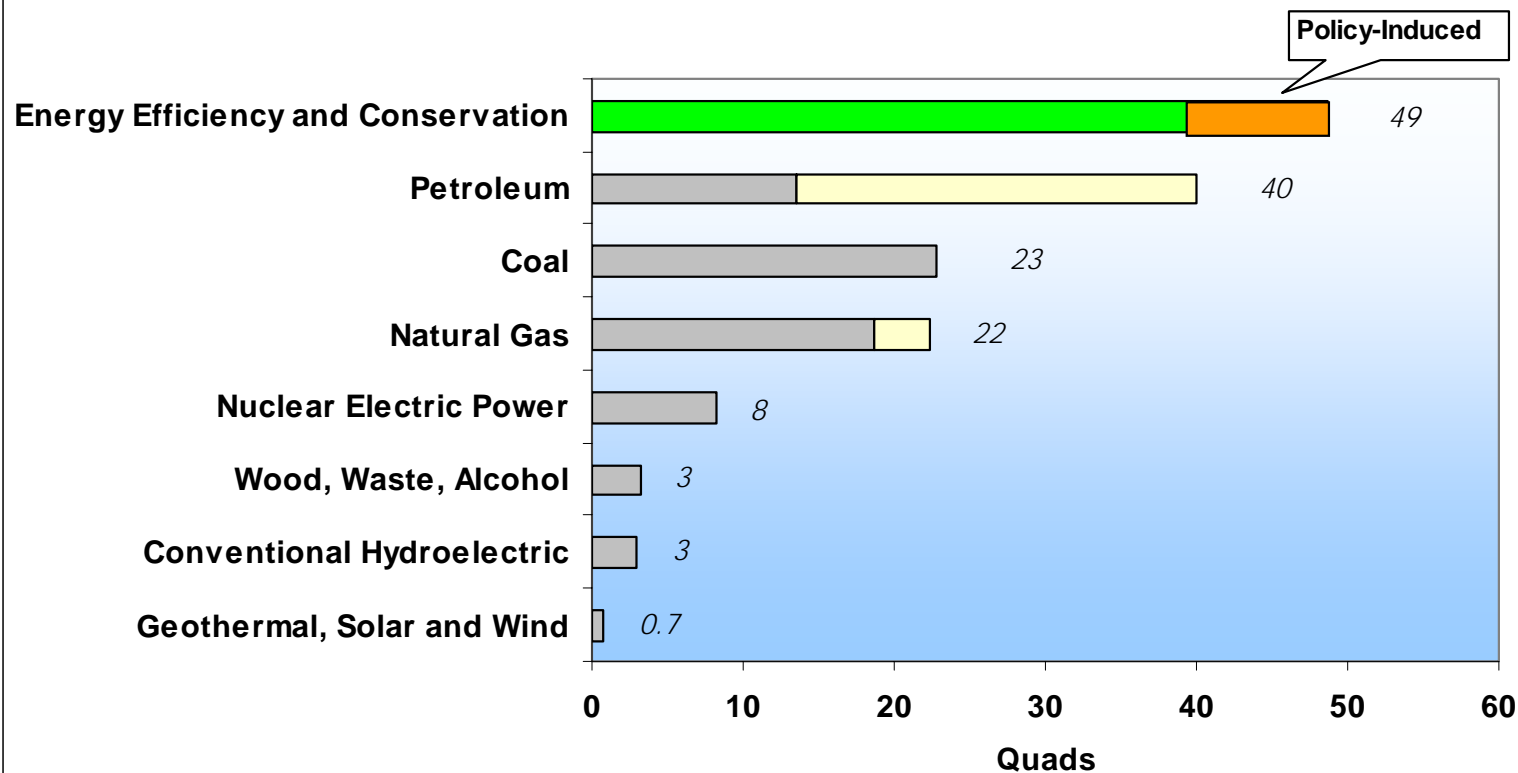
Expedient – Acknowledge issue, but ignore

Why we can't ignore additionality



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America's Greatest Energy Resource *Energy Efficiency and Conservation Improvements Since 1973 Have Reduced Annual Energy Consumption by 49 Quads*



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■ 2006 Domestic Production ■ Net Imports

Let's not beat ourselves



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- Recognize multiple objectives
 - Jobs vs. energy vs. CO2 vs. security
- Activities
 - Transform markets vs. induce install vs. install
- Ulterior motives
 - Fast spend vs. effective

Summary



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- Many years of EE EM&V
- Be realistic
 - EMV may not be up to some tasks
- EE EM&V not uniquely challenged
 - We're surrounded by counterfactuals!
- Can't ignore additionality



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